

REMARKS

Applicants request that the Examiner call their attorney, Steven Koffs at 215-979-1250, before issuing a further Action in this application, in order to resolve any question or issue that may remain, and to expedite the prosecution of this application.

Reconsideration of this application is respectfully requested.

Claims 1-9 and 29-41 were pending. Claims 1-9 and 29-41 were rejected. Claims 9 and 31 are canceled. The independent claims are amended.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3, 4, 6-9, 29-31, 33, 35-41 and 43-46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ray, Jr. et al. (US 4,101,700).

The independent claims have been amended. The amendments to claim 1 are representative of the amendments made in this paper to all the independent claims. Amended claim 1 recites,

... a flexible, resilient cover layer of a solid of a cured liquid cast directly on the roughly textured face without a facing layer therebetween, to form a flexible, resilient composite, [emphasis added]

Support for the amendments is provided by FIGS. 2A and 2B, which show the cured liquid cast directly on the roughly textured face without a facing layer therebetween. No new matter is added.

Ray, Jr. et al. neither discloses nor suggests these features. Ray, Jr. describes a duct liner insulation layer with a face layer thereon. The face layer has a higher density than the thermal insulation layer, and is made of a thin organic fibrous facing material having a relatively open

structure. (col. 1, lines 45-51) The organic fibrous web is applied to one surface of the insulation blanket before curing the binder in the blanket. (col. 2, lines 9-12).

Ray, Jr. et al. would never have disclosed or suggested to one of ordinary skill in the art to modify Ray, Jr.'s duct liner to achieve the structure of claim 1. Ray, Jr. et al. states:

The nature of the thin organic fibrous web is critical to the performance of the product. While various materials such as nylon, rayon, and polyethylene have been tried, only rayon materials have proved satisfactory. Even with rayon, a relatively lace-like, open structure is critical, otherwise the working face will not withstand working temperatures up to 250.degree. F without embrittlement and a tendency to delaminate or deteriorate. It is not understood why an open structure in the organic fibrous web is necessary, . . . [emphasis added] (See Ray, Jr. et al., col. 2, lines 37-46)

Not only does Ray, Jr. state that an organic fibrous web having an open structure is "necessary," and "critical to the performance of the product," he further admits that, "only rayon materials have proved satisfactory [for the thin organic fibrous web]."

Thus, Ray, Jr. et al. not only fails to disclose or suggest the structure of Applicant's amended claims, he teaches away from the claimed invention by teaching that an organic fibrous web of rayon having an open structure is necessary, between the insulation body layer and the cover layer to prevent embrittlement and delamination.

The Action admits that Ray, Jr. et al. fails to disclose that "the cover layer is permanently embedded into the body layer," but alleges that this feature would have been obvious. Ray, Jr. teaches that satisfactory results could only be obtained (and delamination only avoided) upon application of a particular organic fibrous rayon web having an open structure to the surface of the insulation layer prior to applying the coating. Thus, Ray, Jr. not only fails to disclose or suggest embedding, he makes statements that would have led one of ordinary skill down an entirely different path.

Because Ray, Jr. et al. refer to their organic fibrous rayon web having an open structure as necessary and critical to performance, it would never have been obvious to one of ordinary

skill in the art to modify Ray, Jr.'s product by completely eliminating the organic fibrous rayon web. Nothing in Ray, Jr. et al. would lead one of ordinary skill in the art to believe that such a product would work.

The Action states,:

It is not seen how Applicant's method of making the insulation composite significantly affects the chemistry or structure of the insulation composite itself. It is the examiner's position that the thermally insulating duct liner of Ray, Jr. et al. is identical to or only slightly different than the claimed insulation composite prepared by the method of the claims, because both insulation material comprise a first and second nonwoven fiberglass layer and a cured coating.

As made clear by the amendment, Applicant's insulation material does NOT comprise a second non-woven fiberglass layer between the body layer and the cover layer. Further, as explained at page 6, lines 17-22, "the claimed cover layer becomes permanently attached to the top of the body layer as a consequence of the uppermost fibers 6 being deeply embedded in the cover layer." Applicants method (as claimed in the product by process claims) results in deep embedding that does not rely on the imposition of a separate organic fibrous rayon web to provide a structure of sufficient integrity to resist delamination.

Further, applicants method provides a cover layer having a thickness dimension which is substantially uniform. The Action admits that Ray, Jr. does not disclose either embedding or uniform thickness. The Action essentially argues that this feature is desirable optimization, and therefore it must have been obvious. What the Action characterizes as a matter of degree and mere optimization is properly considered as a qualitative distinguishing feature, a difference of kind and not merely one of degree. Ray, Jr. does not disclose or suggest any degree of thickness uniformity at all, or any means to achieve a uniform, deeply embedded coating. Further, Ray, Jr.'s suggested methods of applying the coating (spraying or roller coating) would likely produce a coating that is not uniform, since Ray, Jr. indicates that the coating has a smooth working face, and Ray, Jr. does not give any indication that his coating is embedded. For example, spraying

would not result in deep embedding, and in particular, would not provide embedding so as to provide both uniform thickness in a smooth coating.

In view of the foregoing, the rejection of claim 1 should be withdrawn. The other independent claims have been amended in the same way as the amendments to claim 1, and should also be patentable. Therefore, the rejection of claims 3, 4, 6-9, 29-31, 33, 35-41 and 43-46 should also be withdrawn.

Claims 5, 32, 34, 42 and 47 were rejected under § 103 as being unpatentable over Ray, Jr. et al. in view of Shackel et al. (US 5,567,504). Shackel et al. was only cited for teaching that the cover layer is an acrylic polymer and that the composite further comprises an outer layer made of a metal foil. However, Shackel et al. fails to cure the deficiency of Ray, Jr. et al. with respect to the features of the independent claims, as discussed above. Schackel's coating is applied above the surface of his grooved products, but is not embedded into the body layer, as required by applicant's independent claims. Schackel applies a foam using a wiper blade, similar to the technique described in the background of Applicant's application, page 2, first paragraph. As one of ordinary skill in the art understands, foams tend to sit on the surface and do not embed deeply into the substrate on which they are placed.

Therefore, Schackel et al. does not cure the deficiencies of Ray, Jr., and claims 5, 32, 34, 42 and 47 should be patentable for at least the same reasons discussed above with respect to claim 1.

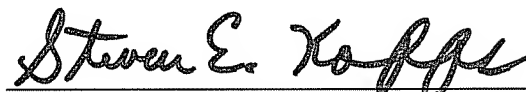
In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is now in condition for allowance, and request early notification to that effect.

Appl. No. 09/241,450
Amdt. dated August 18, 2006
Reply to Office action of May 18, 2006

The Commissioner for patents is requested to charge any fees associated with this communication to deposit account number 04-1679.

Respectfully submitted,

Date: August 18, 2006

A handwritten signature in dark ink, reading "Steven E. Koffs", written over a horizontal line.

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